

United States Department of the Interior



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July 16, 2012

To: Interested Parties

From: Felipe Carrillo, Supervisory Fish Biologist, Red Bluff Fish and Wildlife Office

Subject: Biweekly report (July 1, 2012 - July 14, 2012)

Please find attached preliminary daily estimates of passage, 90% confidence intervals, and fork length ranges of juvenile salmonids sampled at Red Bluff Diversion Dam for the period July 1, 2012 through July 14, 2012. Race designation was assigned using length-at-date criteria.

This report also contains graphical displays of salmonid passage dating back to 2005 for comparison.

Please note that data contained in these reports is subject to revision as this data is preliminary and undergoing QA/QC procedures.

If you have any questions, please feel free to contact me at (530) 527-3043 ext 246

Table 1.— Preliminary estimates of passage by brood-year (BY) and run for unmarked juvenile Chinook salmon and steelhead trout captured by rotary-screw traps at Red Bluff Diversion Dam (RK391), Sacramento River, CA, for the dates listed below. Results include estimated passage, peak river discharge volume, water temperature, turbidity, and fork length (mm) range in parentheses. A dash (-) indicates that sampling was not conducted on that date.

	Discharge volume (cfs) ¹	Water temperature (°C)	Water turbidity (NTU)	Estimated passage				
Date				BY12 Winter	BY11 Spring	BY11 Fall	BY12 Late-Fall	BY12 RBT
7/1/2012	15,100	14.3	2.9	0(-)	0(-)	1,114 (69 – 103)	0(-)	174 (60 – 113)
7/2/2012	15,100	13.8	2.5	0 (-)	0(-)	2,444 (69 – 110)	0(-)	122 (54 – 87)
7/3/2012	15,000	13.7	2.7	0(-)	0(-)	5,865 (62 – 112)	56 (49)	170 (45 – 104)
7/4/2012	15,000	13.6	_	_	_	_	_	_
7/5/2012	14,900	13.7	3.0	0(-)	0(-)	2,223 (65 – 112)	58 (61)	58 (77)
7/6/2012	15,100	13.5	2.1	0(-)	0(-)	6,734 (66 – 121)	244 (59 – 62)	501 (55 – 110)
7/7/2012	15,000	13.4	_	_	_	_	_	_
7/8/2012	15,200	13.6	_	_	-	-	_	_
7/9/2012	15,300	13.6	3.1	0(-)	0 (-)	2,156 (68 – 104)	0(-)	438 (28 – 95)
7/10/2012	15,300	13.6	2.5	0(-)	0(-)	2,292 (67 – 99)	195 (60 – 64)	280 (50 – 106)
7/11/2012	15,300	13.6	2.0	0(-)	0 (-)	1,351 (71 – 97)	79 (58)	398 (25 – 104)
7/12/2012	15,300	13.6	1.8	0(-)	0 (-)	1,727 (67 – 108)	82 (65)	82 (73)
7/13/2012	15,000	13.8	2.0	0(-)	0(-)	3,004 (66 – 105)	165 (38 – 62)	345 (25 – 75)
7/14/2012	14,800	13.8	_	_	_	_	_	_
Biweekly Total ²				0	0	40,474	1,231	3,596
Biweekly Lower 90% Confidence Interval				0	0	-49,919	-5,939	-9,997
Biweekly Upper 90% Confidence Interval				0	0	130,867	8,401	17,189
Brood Year Total				0	181,008	5,983,964	76,776	27,819
Brood year Lower 90% Confidence Interval				0	96,445	3,381,004	61	13,331
Brood year Upper 90% Confidence Interval				0	265,571	8,586,925	153,491	42,306

¹ Peak daily discharge values do not account for diversions at RBDD and only represent peak flows registered at the Bend Bridge Gauging station (http://cdec2.water.ca.gov/cgi-progs/queryFx?bnd).

² Biweekly totals may be greater than the sum of the daily estimates presented in this table if sampling was not conducted on each day of the biweekly period. A dash (-) denotes those dates. To estimate daily passage for days that were not sampled, we impute missed sample days with the weekly mean value of days sampled within the week.

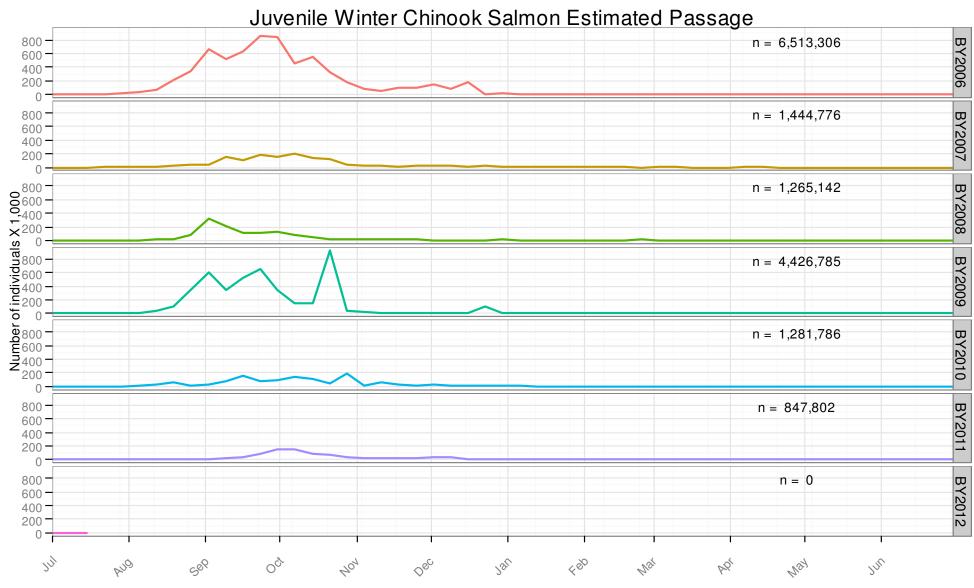


Figure 1. Weekly estimated passage of juvenile winter Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period July 1 2006 to present.

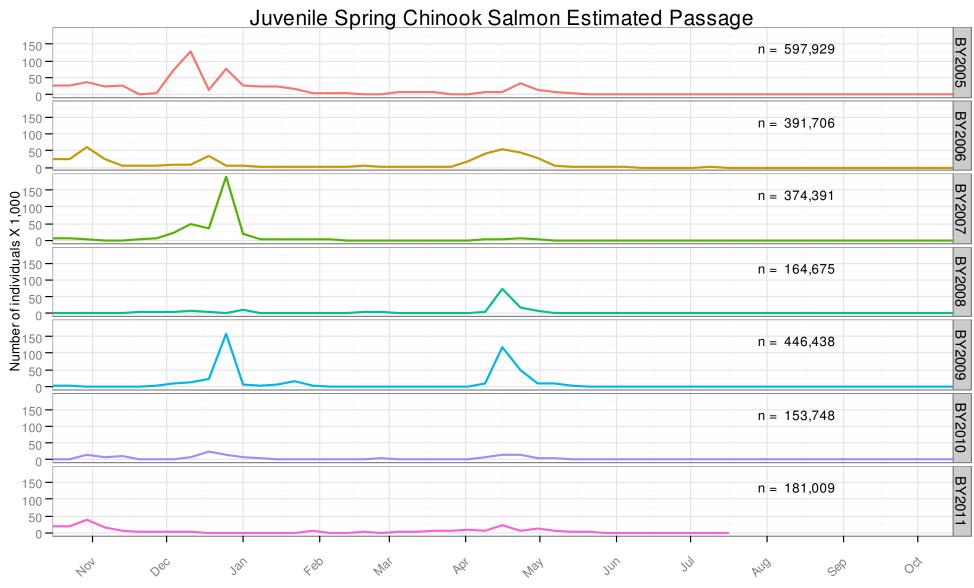


Figure 2. Weekly estimated passage of juvenile Spring Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period October 16 2005 to present.

Juvenile Onchorhyncus mykiss Estimated Passage 25 - 20 - BY2006 n = 72,44115 -10 -25 BY2007 20 - 15 - n = 140,11110 -0 BY2008 Number of individuals X 1,000 501200 n = 139,250BY2009 n = 128,080BY2010 n = 100,7460 25 20 BY2011 n = 56,12415 **-**25 - 20 - 15 - BY2012 n = 27,82010 -5

Figure 3. Weekly estimated passage of juvenile Rainbow/Steelhead trout at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period January 1 2006 to present.

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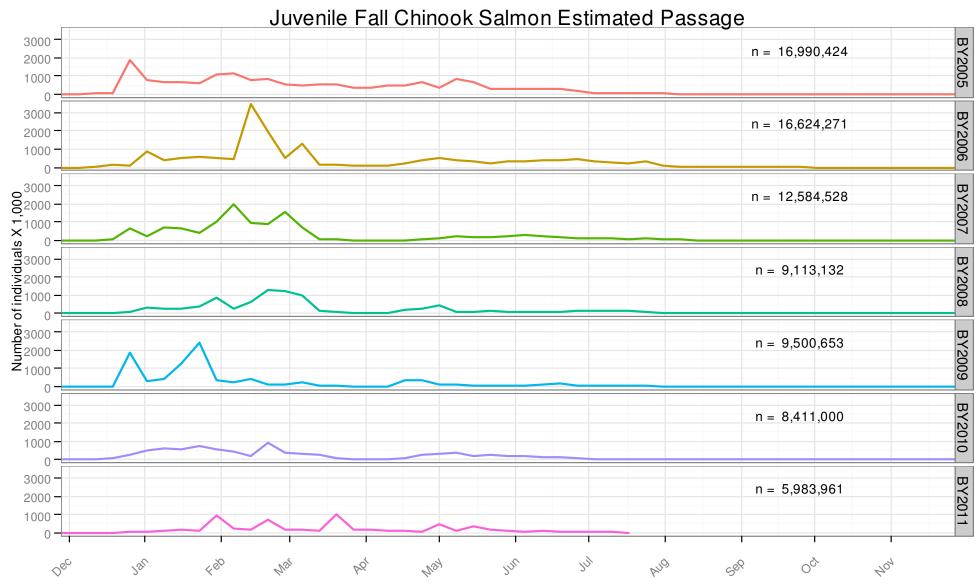


Figure 4. Weekly estimated passage of juvenile Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period December 1 2005 to present.

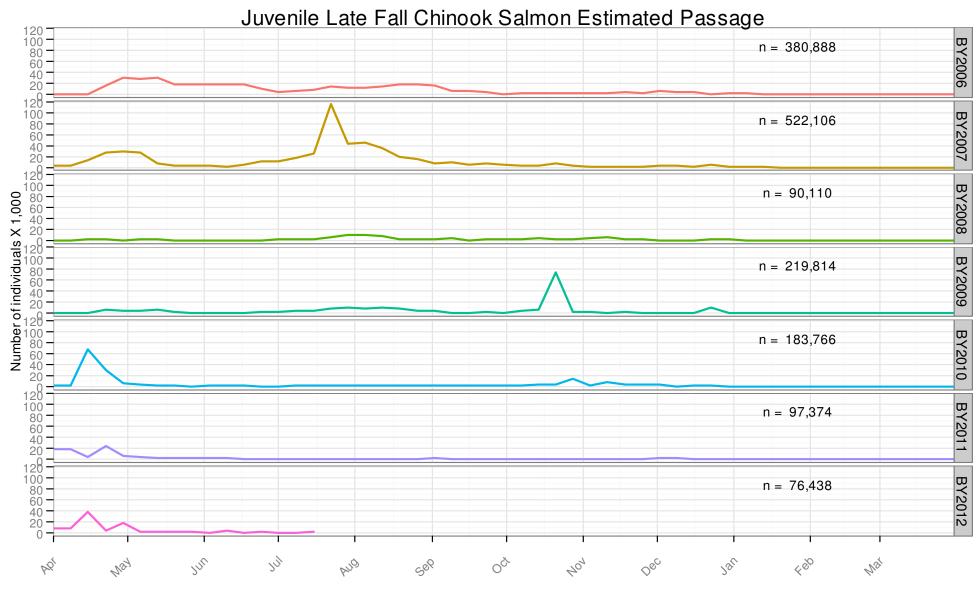


Figure 5. Weekly estimated passage of juvenile Late Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period April 1 2006 to present.

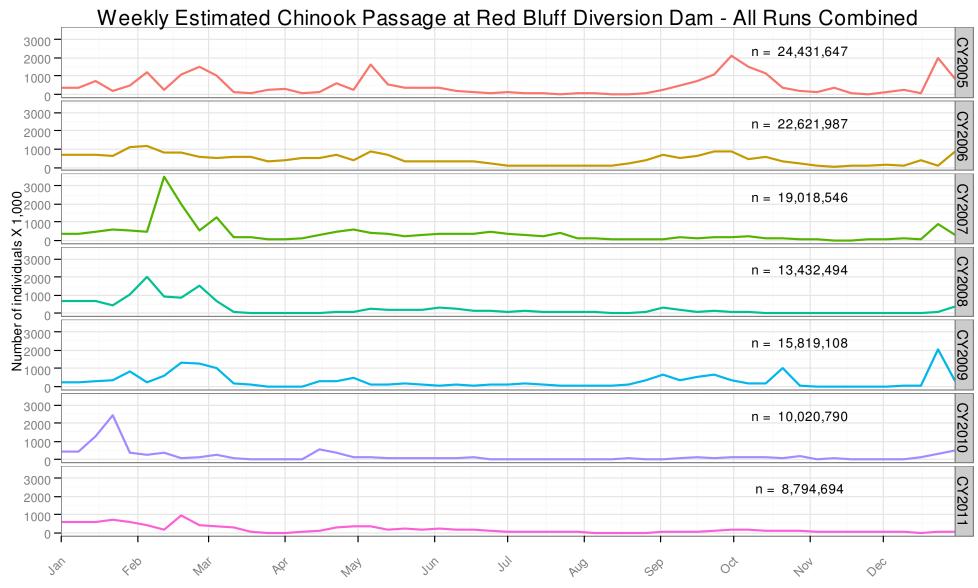


Figure 6. Weekly estimated passage of juvenile Chinook Salmon at Red Bluff Diversion Dam (RK391), by calendar year. Fish were sampled using rotary-screw traps for the period January 1 2005 to December 31 2011